

MS4
THE COST-EFFECTIVENESS OF ADDING INFLIXIMAB TO USUAL THERAPY IN THE TREATMENT OF PSORIATIC ARTHRITISMarra CA¹, Maetzel A², Farewell VT³, Rashidi AA¹, Shi P¹, Antoni C⁴, Wong JB⁵, Gladman DD⁶¹University of British Columbia, Vancouver, BC, Canada; ²Toronto General Research Institute, Toronto, ON, Canada; ³Institute of Public Health, Cambridge, United Kingdom; ⁴Schering-Plough Corporation, Kenilworth, NJ, USA; ⁵Tufts-New England Medical Center, Boston, MA, USA; ⁶Toronto Western Research Institute, Toronto, ON, Canada

OBJECTIVES: To estimate the cost-effectiveness of infliximab compared to usual treatment for treatment of active psoriatic arthritis (PSA) over five-years from a Canadian health care perspective. **METHODS:** A Markov computer simulation model representing the natural history of severe PSA patients was designed with a 16 week cycle length. Clinical states were defined based on number of active (swollen or tender) joints as follows: 1) zero joints; 2) 1–4 active joints; 3) 5–9 joints; and 4) ≥10 joints. The model was stratified by baseline score on the psoriasis area and severity index (PASI) of < and ≥2.5. Transition probabilities to new clinical states were based on results of two randomized, controlled clinical trials (IMPACT-1 and IMPACT-2). Direct health care costs (2004 Canadian dollars) and EQ-5D utilities by active joint states were determined from a sample of 100 PSA patients receiving care in Toronto. The EQ-5D for each health state was estimated from a regression equation using the active joint categories, the Health Assessment Questionnaire (HAQ) and the PASI (adjusted R² = 0.65). Observed scores in these parameters from the clinical trials were used to model the utility values. Costs and outcomes were discounted at 3%. No mortality benefit was assumed and univariate and probabilistic sensitivity analyses were performed. **RESULTS:** At 5 mg/kg dose, each infliximab infusion would cost \$3661. The incremental cost and quality adjusted life years (QALYs) gained (95% CI) of the infliximab strategy were estimated to be \$76,600 (\$53,900–\$97,400) and 1.01 (0.58–1.40), respectively. The incremental cost-effectiveness ratio was estimated to be \$75,500 (95% CI \$62,000–\$100,100) per QALY gained. The model was robust to plausible parameter changes. **CONCLUSIONS:** Assuming a willingness to pay of \$100,000 per QALY gained, our results show that for PSA patients similar to those included in the trials, adding infliximab may be economically attractive.

Podium Session II**Health Care Policy Studies II****HP5**
FINANCIAL BARRIERS TO MEDICATION USE IN CHILDREN WITH ASTHMA: AN ANALYSIS OF PRIVATE SECTOR PRESCRIPTION MEDICATION CLAIMSUngar WJ¹, Ahmad F², Kozyrskyj A³, Paterson M⁴, Mamdani M⁴¹The Hospital for Sick Children, Toronto, ON, Canada; ²Brogan Inc, Ottawa, ON, Canada; ³Manitoba Centre for Health Policy, Winnipeg, MB, Canada; ⁴Institute for Clinical Evaluative Sciences, Toronto, ON, Canada

OBJECTIVE: The highest incidence of asthma occurs in children. Proper management requires treatment with multiple expensive medications. For private drug plan subscribers, deductibles and co-payments constitute a user fee which may impede access. The primary objective was to examine the impact of co-pay level on asthma medication use in asthmatic children

in private drug plans. **METHODS:** A cohort of 17,046 asthmatic Ontario children from an aggregated private sector claims database were classified as zero (no co-payment), low (<20%) or high (>20%) co-payment. Use of bronchodilators (BD), inhaled corticosteroids (ICS), leukotriene antagonists (LA), oral corticosteroids (OS) and combinations were examined in 2003. Multiple linear and logistic regressions compared medication use between groups controlling for age and sex. **RESULTS:** Annual asthma medication claims per child were significantly lower in the high co-pay group (6.6) compared to the zero (7.0) and low co-pay (7.2) groups ($p < 0.0001$). Children in the high co-pay group were less likely to receive concomitant BDs, ICSs and LAs compared to the low co-pay group, Odds Ratio 0.78 (95% CI 0.67, 0.86). As a marker for asthma exacerbation, children in the high co-pay group were more likely to receive an OS compared to the zero co-pay group, Odds Ratio 1.1 (95% CI 1.0, 1.2). **CONCLUSIONS:** Cost-sharing level affected asthma medication utilization, with the highest cost-sharing group exhibiting significantly lower use of maintenance medications and higher use of medications for acute exacerbation than other groups. These results are valuable to inform decisions regarding policy reform and drug plan management.

HP6
CHOLESTEROL GOAL ATTAINMENT AMONG CHD PATIENTS IN HONG KONGLee VW¹, Chan WK², Lee BS³, Chong AC², Wong JC³, Tomlinson B¹, Lee KKC¹¹The Chinese University of Hong Kong, Shatin, Hong Kong, China;²United Christian Hospital, Kwun Tong, Hong Kong, China; ³Prince of Wales Hospital, Shatin, Hong Kong, China

OBJECTIVES: Recent evidence indicates cholesterol reduction to levels below currently recommended goals contribute to further reduction of CHD events. The prescribing pattern of statins and rate of cholesterol goal attainment in CHD patients were evaluated at 2 public hospitals in Hong Kong. **METHODS:** Retrospective observational study was conducted at 2 hospitals (A and B). 276 patients were randomly selected from the coronary care units. Patients admitted due to acute myocardial infarction (AMI) over the period of January 1, 2001 to December 31, 2002 were followed up. Statin therapy must be prescribed for at least 3 months after initial hospitalization. Treatment patterns were determined by studying the dosages, titration (if any), and change of statin therapy. Cholesterol levels were measured before and after treatment and the NCEP ATP III was used to define cholesterol goal (LDL < 2.59 mmol/dl). **RESULTS:** Of the 276 patients, 174 patients (43% female; mean age 63 years [SD 12]) were initiated on statin therapy after admission and studied. Hospital-A had significantly ($p < 0.05$) more patients prescribed simvastatin 40 mg or higher dose statins compared to hospital-B. Overall 48% percent of patients did not experience any change in statin dose, approximately equal number of patients were down titrated (24%) as were up titrated (27%). The cholesterol goal attainment rate based on calculated LDL-C measures using the Friedwald equation was 61.62% at A and 37.70% at B. Based on logistic equation model for goal attainment; patients having hypertension (Odds Ratio [OR] 0.41; 95% CI 0.91–0.87), CHD (OR 0.17; 95% CI 0.03–0.93) and elevated LDL-C (OR 0.602; 95% 0.407–0.889) at baseline were less likely to attain goal. **CONCLUSION:** Current lipid lowering therapies fail to bring majority of the patients to recommended cholesterol goal at the 2 hospitals. More effective therapeutic options are needed to help CHD patients attain recommended cholesterol goals.